

WHAT IS CLAIMED IS:

1. A radar comprising:

a transmission section for transmitting a transmission wave;

a receiving section for receiving, as a received wave, a wave reflected from a target;

a conversion section for converting, into an electric signal level, a time difference existing between a time at which the transmission wave is transmitted and a time at which the received wave is received; and

a computation section for computing a distance to the target on the basis of the electrical signal level output from the conversion section, wherein

settings are made such that a portion of a conversion characteristic of the conversion section having a small time difference becomes larger than a portion of the conversion characteristic of the conversion section having a large time difference, in terms of a change in the electrical signal level corresponding to the time difference.

2. The radar according to claim 1, wherein

a portion of the conversion characteristic of the conversion section, the portion being larger than a predetermined first time difference, is set such that a change

becomes saturated.

3. The radar according to claim 2, wherein the first time difference is a time difference corresponding to a distance required to render a determination as to whether or not a safety device provided on a vehicle is to be activated.

4. The radar according to claim 1, wherein the conversion section converts, into an electrical signal level, a time difference determined by subtracting a lag time of an electrical circuit including at least one of the transmission section and the receiving section from the time difference between the transmission time at which the transmission wave is transmitted and the receiving time at which the received wave is received.

5. The radar according to claim 4, wherein the conversion section determines the lag time from a wraparound component which is received by the receiving section directly from the transmission section.

6. A radar comprising:  
a transmission section for transmitting a transmission wave;

a receiving section for receiving, as a received wave, a wave reflected from a target;

a conversion section for converting, into an electric signal level, a time difference existing between a time at which the transmission wave is transmitted and a time at which the received wave is received; and

a computation section for computing a distance to the target on the basis of the electrical signal level output from the conversion section, wherein

the conversion section converts, into an electrical signal level, a time difference determined by subtracting a lag time of an electrical circuit including at least one of the transmission section and the receiving section from the time difference existing between the transmission time at which the transmission wave is transmitted and a receiving time at which the received wave is received.